8

AN INQUIRY INTO THE GROUNDS *and* NATURE Of the ſeveral SPECIES of RATIOCINATION.

IN WHICH,

The Argument made Uſe of in the PHILOSOPHICAL ESSAYS of D. HUME, Eſq; is occaſionally taken Notice of.

PHILOSOPHICAL SOCIETY

By *A. G. O. T. V. O. C.*

Fuit ergo, jam accepta à PLATONE, *philoſophandi ratio triplex: Una, de vita & moribus; altera, de natura, & rebus occultis; Tertia, de — quid verum & quid falſum.* CIC. Acad. I. 5.

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OF THE

Grounds and Nature, &c.

INTRODUCTION.

THE gift of reaſon, whatever benefits may attend the application of it in the *ordinary* occurrences of life, is ſeldom exerted to the higher and more refined purpoſes of *philoſophical* inquiry, with that ſucceſs which might reaſonably be expected from the known extent of its powers. In the inveſtigation of truth, as in every other ſcience, few can boaſt the attainments of *maſterly* execution, though every pretender to leiſure makes profeſſion of the buſineſs, and many of theſe have actually labored in it through an apprenticeſhip of half their lives.

From an *ordinary* capacity indeed, and a *ſcanty* diſtribution of the proper talents, it

were unreaſonable to expect the ſame rich produce we naturally promiſe ourſelves, in the happy effects of *addreſs* and *ſkill:* And hence, in the *philoſophical*, as in the *mechanic* arts, where *genius* is wanting, men of ſenſe and candor will always be diſpoſed to make the proper allowances. At the ſame time, however, miſcarriages in the *former* province are perhaps leſs pardonable than is uſually ſuppoſed, as proceding more frequently from an habit of *inattention*, than from natural *defect* and *incapacity*. In reaſoning, men generally procede too indiſcriminately, and without a proper regard to the *nature* of the work before them: And hence it is, that a good cauſe ſo frequently ſuffers under the conduct of thoſe who undertake the management of it. For men fail, where they do fail in the eſtabliſhment of their point, not ſo much through the want of *ability to conduct their proof*, as through a *miſtaken application of arguments* to their particular purpoſe, which are by no means adapted to it.

Truths of a different nature are accordingly the objects of a different *ſpecies* of reaſoning: And if they are not handled, in the diſcuſſion, with a proper regard to their nature, and that eſſential difference which nature hath eſtabliſhed, the reſult of ſuch inquiry can never be depended upon, and if the concluſion

cluſion is *not* erroneous, it can only be by chance. We ſhould deſervedly laugh at a man who pretended to ſhew us the *probability* that *the three angles of a triangle were equal to two right ones*; yet a *demonſtration* of *facts* is frequently pretended to. But, in point of abſurdity, where is the difference? For a matter of *fact* is no more the object of *demonſtrative* proof, than the relation between the two ideas, in the foregoing inſtance, is of *preſumptive* evidence: Nor can the former be aſcertained by a train of *reaſoning*, any more than the latter can by a jury of *witneſſes*.

Whatever can become the object of a rational inquiry, is ultimately reducible to one or another of *three* general claſſes. One of theſe includes the ſeveral relations of *ideas*; another, the whole ſyſtem of *moral* relations; and the remaining one, that of all *actual* exiſtences. And it is the principal buſineſs of every man that would reaſon with a proſpect of ſucceſs, to conſider, to which of theſe ſeveral claſſes the object of his inquiry may properly be referred. For the ſagacity which is neceſſary to conduct the proof, or calculate the iſſue of it, is in compariſon of this, but a ſecondary qualification. Few are ſeen to err, (that have common abilities) for want of the latter; while the beſt underſtandings, where the former has been neglected, after

ſetting out wrong, as muſt always be the caſe, have ſhamefully miſcarried of their intended purpoſe.

It may much contribute then to our ſucceſs, and thereby to our ſatisfaction too, to obſerve and remember that there are three diſtinct ſpecies of *ratiocination*, correſponding to the three diſtinct claſſes of *objects* juſt now ſpoken of; three different methods, in which the faculty of reaſon is capable of being exerciſed—that each of theſe, as a diſtinct court of judicature, hath its particular province——and, that every object of reaſoning, as it *naturally* belongs to this or that of the claſſes beforementioned, is *naturally* capable of being *proved* only in this or that particular *manner*; and of being *aſcertained* only in this or that particular *degree*. What I call the different ſpecies of reaſoning, I ſhall chuſe to diſtinguiſh by the ſeveral names of *demonſtration*, *moral* evidence, and *preſumptive*: In each of which, three particulars are eſpecially to be noted, *viz.* the *firſt principle*, the *argument*, and the *concluſion*.

SECT.

SECT. I.

WHERE the *firſt principle* aſſumed, in the order of proof, is a *neceſſary* truth; if the ſeveral *ſteps* that follow, are alſo *neceſſarily* connected, the firſt with that, and the reſt with one another, throughout; the *argument*, in that caſe, is of the *demonſtrative* kind, the higheſt imaginable, being, on thoſe accounts, indiſſoluble and irretragable, and terminating in *abſolute* certainty.

By *neceſſary* truths, I mean ſuch as manifeſtly *cannot but* be, in oppoſition to ſuch as however *evident*, and however we may be *perſuaded* of, are yet not certain in ſuch manner, but that the *contrary* alſo may be ſuppoſed to take place, without a *natural contradiction*. Thus, that $2 + 3 = 5$, I call a *neceſſary* truth, becauſe two and three *cannot but* make five, and the ſuppoſition that they can, implies a natural abſurdity. For, ſince it is granted that they *actually* are equal to five, if they could alſo be equal to any *other* number, to ſix, for inſtance, then, ſince two quantities, that are equal to a third, are equal alſo to one another, ſix and five would be equal, a greater to a leſs, which is a *natural* contradiction. But with other truths, however

ſelf-

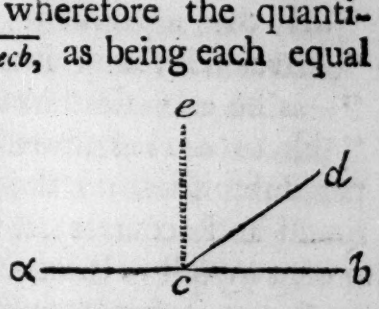
ſelf-evident, as we ſay, this is not the caſe. *E. g.* That *every effect does neceſſarily require a cauſe*, or to ſpeak more properly, that *every finite exiſtence is an effect*, I call and allow to be a *natural* and *ſelf-evident* truth: But why? I cannot tell. I *feel* indeed and am *perſuaded* of it; yet not becauſe the *contrary* ſuppoſition implies any *natural contradiction*, for, in reality, it does not, nor can any ſuch contradiction be ſhewn: It is not, therefore, a *neceſſary* truth. If it be ſaid, that I have no other authority for the neceſſity of the truth ſuppoſed in the *former* inſtance; no other authority for ſaying that *a greater can not be equal to a leſs*, than an inward *feeling* and *perſuaſion*, which would equally juſtify my calling the *latter* alſo a *neceſſary* truth; this I deny. The very inequality of one thing to another *conſiſts* in this, that one is *greater*, and the other *leſs*. While therefore, the one *continues* greater, and the other leſs, the *inequality* alſo ſubſiſts, which is only a ſynonymous expreſſion for, and equivalent to, *non-equality*: The contradiction therefore, in *this* Caſe, is *viſible*. In the *other* caſe it is not ſo. I *feel* indeed the truth I contend for; but if I do not alſo *ſee* the abſurdity of ſuppoſing the contrary, I do not *ſee* the *neceſſity* of that truth. There is, indeed, between the *barely* ſelf-evident, and the *neceſſary* truth, conſidered as *objects*, exactly the ſame difference that there is betwixt the two *media*

through

through which I reſpectively contemplate them; the *faculties* (if I may ſo ſay) of *faith* and *ſight*. But to return:

This therefore is that ſpecies of argument, which I call *demonſtrative*. It is eſſential to it, that the *firſt* principle be a *neceſſary* truth; that the ſeveral *ſteps* in the progreſſion be *neceſſary* conſequences of that, and of each other; from whence it muſt needs follow, that the *concluſion* alſo will be a *neceſſary* truth; and that this kind of proof therefore will always and unavoidably terminate in *abſolute certainty*.

Hence we ſee what kind of truths are the proper and peculiar objects of this ſpecies of reaſoning, *viz.* all ſuch as are deducible, by *neceſſary conſequence*, from *neceſſary principles*. *E. g.* That *two quantities, which are equal to a third, are equal alſo to one another*, is a *neceſſary* truth; wherefore the quantities $\overline{acd+dcb}$ and $\overline{ace+ecb}$, as being each equal to $\overline{ace+eca+dcb}$, are alſo equal to one another: *i. e.* the two angles, formed by one right line falling upon another, are equal to two right ones. And it is, for the reaſons abovementioned a propoſition of *abſolute* certainty, and *univerſal* truth. The ſame may be affirmed



affirmed of all mathematical concluſions what-ſoever: As being all, in like manner, deductions from principles, either viſibly *neceſſary* on firſt ſight, or which have previouſly been *ſhewn* to be ſuch.

If what is here laid down be true, it will follow, as I conceive, that *quantity* alone is the object of *this* ſpecies of reaſoning; and ſuch propoſitions, as are affirmative of the ſeveral relations of equality, proportion, *&c.* betwixt any two ideas of quantity, the only ones that are ſuſceptible of *demonſtrative* proof. Mr. *Locke* indeed, has given it as his opinion, that it is not true; however, " it " has generally been taken for granted, that " mathematics *alone*, are capable of *demon-* " *ſtrative* certainty * ;" and urges, in ſupport of it, " that, wherever we can per- " ceive the agreement or diſagreement of " any two ideas, by an *intuitive* perception " of the agreement or diſagreement they " have with any intermediate ideas, there " (as he expreſſes himſelf) the mind is capa- " ble of *demonſtration.*" But with all proper ſubmiſſion to the judgment of ſo profound and accurate an inquirer, I cannot but profeſs myſelf to be of a very different opinion. It is not, I think, ſufficient, that the relation between any two ideas be diſcernible " by an " *intuitive* perception of their agreement or " dif-

* Eſſay on human underſtanding, B. IV. C. ii. § 9.

" diſagreement with any intermediate ones," unleſs their ſeveral connections with, and relations to, thoſe intermediate ones, as well as of the intermediate ones with one another, from firſt to laſt, be alſo, in the nature of things, *neceſſary*, *i. e.* manifeſtly ſuch as *cannot but* obtain. That there is ſuch a difference as I have all along contended for, between truths ſimply evident, and truths *neceſſary* alſo as well as *evident*, cannot, I think, be diſputed. And if ſo, there will be a proportionable Difference in the nature of the proof, according as this or that ſort of truths take place in the proceſs. If the connection throughout be viſibly *neceſſary*, the concluſion in the end will be *neceſſary* too; and the truth it eſtabliſhes, *abſolutely* certain. But if we have no *other* aſſurance of the intimacy of ſuch connection, than ſuch as ariſes from a ſimple *perſuaſion* of the mind, however unavoidable, this alters the caſe, and will affect the argument in the ſame degree. For if it be barely *poſſible*, that ſomething might exiſt *otherwiſe* than is affirmed in the courſe of the deduction, then the truth alſo which is *concluded* from ſuch deduction, (ſince the force of the concluſion depends upon the ſtrictneſs of the intermediate connections) might *poſſibly* alſo not have taken place. Hence, whatever aſſurance we may have of a truth inferred in *this* manner, as it cannot amount to *abſolute* certainty, it will neceſſarily be inferior to the

aſſurance we have of a truth eſtabliſhed as in the inſtance that goes before: And if that therefore be properly called *demonſtrative*, the latter muſt be referred to ſome *other* claſs. This we proceed to conſider.

SECT. II.

ANOTHER method then in which the faculty of reaſon is exerciſed, is that wherein the Argument procedes upon, as the firſt and fundamental *principles*, truths, which though *not* neceſſary in their *nature*, and in reſpect of their ſubject matter, are yet ſuch, with reſpect to the *human mind*. Truths, which *we cannot but* be perſuaded of, though it were *poſſible*, at the ſame time, that the relations expreſſed in them, might ceaſe to exiſt. Truths, in ſhort, which are neceſſary indeed, from the particular caſt and conſtitution of *our* nature, though from no conſideration or circumſtance, that we know of, in *their own*.

Thus, that *nothing could ever begin to exiſt of itſelf, ſingly, and independently of any thing elſe whatſoever*, is a *ſelf-evident* truth; every thing, which ever had a beginning, being, in the order of *our ideas*, pre-conceived of as an *effect*.

effect. Yet, in the *nature* of things, this will not be a *neceſſary* truth, unleſs I can make it appear from *thence* alſo, that ſuch pre-conception is well-grounded. For, however I may be *perſuaded* that *nothing could ever begin to exiſt of itſelf*, if I can aſſign no better reaſon for it, than that every thing muſt have had a cauſe, this is nothing but affirming, that things could not begin to exiſt *of themſelves*, becauſe they could not begin to exiſt *without* the operation of *ſomething elſe*; i. e. they could not begin to exiſt of themſelves, becauſe they could not. In which caſe, though I *believe*, unavoidably, it is not upon any principle of *reaſon*; and though I *feel* it muſt be ſo, yet my ſenſe of that neceſſity does not ariſe from any *natural abſurdity* I can point out in the *contrary* ſuppoſition.

Now an *argument* which proceeds upon ſuch *principles* as theſe, as *fundamental* ones; or, in the courſe of which, ſuch principles are aſſumed as *intermediate* proofs; will fail of that intimacy of union in its ſeveral parts, which is diſcernible in *mathematical* reaſonings; becauſe, in whatever part of the argument ſuch principles are aſſumed, from that point the connection ceaſes to be *neceſſary*. Such kind of proof therefore, is not *demonſtrative*. For the ſame reaſon, the *concluſion* alſo will not be neceſſary: Such ſort of

concluſions therefore will not be *demonſtrably certain.*

For the ſame reaſon that this ſort of argument is not *demonſtrative* in its *nature*, it is likewiſe not *univerſal* in its *application*, *viz.* becauſe its connection is not neceſſary throughout. When any principle is aſſumed, which is not *neceſſarily* what it is ſuppoſed to be, the *contrary* of what is ſo aſſumed is, for ought we know, *poſſible* in the nature of things. Now if the *contrary* be *poſſible* in the nature of things, the contrary may alſo be aſſerted by any man without a natural abſurdity. And if my argument procede upon the ſuppoſition of what another man does *not* allow, and moreover may diſallow without a *natural abſurdity*, it is, with reſpect to that man, of no force or value. I argue from the ſuppoſed neceſſity of the relation of *cauſe* and *effect*, that there exiſts in the univerſe a ſupreme *firſt* cauſe of all things: And as far as that *principle* is true, the *concluſion* may be be inconteſtibly certain. But if I cannot ſhew that there is a natural contradiction in ſuppoſing finite exiſtences to take place *independently*, the contrary may be *poſſible* in the nature of things. Another perſon therefore may maintain the contrary, for any *reaſon* I can ſhew why he ſhould not: And what becomes then of the argument founded only on the *ſuppoſed* neceſſity I contend

for?

for? In that caſe, I muſt manifeſtly, either eſtabliſh ſuch neceſſity, in order to juſtify the particular ſort of proof I make uſe of; or if that cannot be done, ply him with proofs of a different kind. And this is what I mean by ſaying, that an argument of this ſort is not *univerſal.* Its *premiſes* are *diſputable*; its *authority* therefore but *conditional.* It goes upon a ſuppoſition that is liable to *controverſy*; and can have no farther weight than as that ſuppoſition is *not* controverted. I cannot apply it to any man's conviction, without firſt requiring his aſſent to the principles I deduce it from, whence it will only have the force of an argument *ad hominem:* Not be concluſive *abſolutely*, and whether men will or no; but only with reſpect to *ſuch* perſons as *agree* with myſelf in the truth of the preliminaries.

This ſpecies of reaſoning however is not without its weight: And, if in the proceſs from the *firſt* principle the connections obtain throughout, its *concluſions*, in general, may ſafely be depended on. For ſince *they* are undeniably *juſt*, as far as the *premiſes* are *true*; they will unavoidably be *convincing*, as far as thoſe premiſes are *acknowledged.* And if the apparent neceſſity of the premiſes have a foundation in *human nature*, it may reaſonably be preſumed they *will* be *univerſally* acknowledged. To man, therefore, *as* man,

man, I may fairly tender an argument of this ſort; though, in *particular* caſes, the application of it may be improper.

The certainty of thoſe concluſions in which this ſpecies of ratiocination terminates, is ſo unavoidable, with reſpect to the mind, that hence it is, if I miſtake not, that even *accurate* and *penetrating* minds, ſuch as ſee things *diſtinctly* and *deeply* too, have frequently miſunderſtood *this* kind of proof for *demonſtrative*; and the *natural* concluſions it leads to, for *neceſſary* ones; and the certainty *peculiar* thereto, for what alone is *phyſically* and properly ſuch. They do not ſeem to diſtinguiſh between *abſolute* and *conditional* Proof; *mathematical* and *moral* certainty; what *may* be admitted, and what *cannot* be diſputed: In ſhort, what muſt indeed be true, *if* the premiſes are ſo; and what muſt be true, becauſe the premiſes *cannot but* be ſo. This *ſimilarity* of operation in the argument, in *both* caſes, (each producing the ſame effect upon an undiſcerning mind) has alſo led us to miſcall that aſſurance which is the reſult of the *latter*, by the name of *certainty*. Philoſophers, of all men, ſhould be careful to ſpecify any material difference between two Ideas, by different appellations alſo: In the preſent caſe therefore, if we muſt needs call both by the name of *certainty*; let us, at leaſt, diſtinguiſh their reſpective

kinds,

kinds, and call the former, *phyſical* certainty, and the latter, *moral*.

It is farther obſervable, that the aſſent produced in the mind, by *this* ſort of argument, is what we call *belief*, in oppoſition to what is the natural effect of *demonſtrative* proof, which is *knowledge*. "*Belief*," (ſays Mr. *Locke* *) "is the admitting or receiving any "propoſition for true, upon arguments or "proofs, that are found to *perſuade* us to re- "ceive it as true, without certain *knowledge* "that it is ſo. In all the parts of *knowledge*, "each ſtep has its *viſible* and *certain* connec- "tion; in *belief*, not ſo. That which makes "me *believe*, is ſomething *extraneous* to the "thing I believe: Something *not evidently* "joined on both ſides to, and not ſo manifeſt- "ly ſhewing the agreement or diſagreement "of, thoſe ideas that are under conſidera- "tion." And this natural diſtinction between *belief* and *knowledge*, which are indeed not only different *degrees*, but different *kinds* of aſſurance, may ſerve to throw light on an argument made uſe of by Mr. *David Hume*; in which, I believe, he has been generally miſunderſtood, and, as I conceive, for want of the proper attention, in many of his readers, to the different *kinds* of evidence, and the different effects of them. That gentleman ſeems to contend, that the ex-

* Eſſay on human Underſtanding, B. IV. C. xv. §. 3.

exiſtence of a *firſt* cauſe cannot be *concluſively* argued from the phænomena of the viſible world, becauſe the validity of the proof depends upon the ſuppoſition of a *neceſſary connection* in nature, which we cannot explane, and which we cannot juſtify our admiſſion or aſſumption of, as a *principle*, from any other conſideration, than a *perſuaſion* of mind equally involuntary and unaccountable. Now, if this be the caſe; and if Mr. *Locke*'s account of the matter alſo be true; that, in an argument productive of *knowledge* there muſt needs be a *viſible* and certain connection throughout; or otherwiſe, that the operation of it muſt terminate in that different kind of aſſurance only, which we call *belief*; I do not ſee how Mr. *Hume*'s allegation can reaſonably be controverted, unleſs the propoſition in diſpute can be made out to a demonſtration, in ſome *other* manner. He does not deny the exiſtence of the ſuppoſed relation of cauſe and effect; nor does he any where diſpute the *proper* force and efficacy of the argument grounded thereupon: He may therefore, for ought that appears to the contrary, *believe* alſo the concluſion uſually eſtabliſhed upon that argument. He only affirms that the *firſt* principle is not a *neceſſary* truth; that the *proof* ſtruck out from it, is therefore not of the *demonſtrative* kind; and that the *concluſion*, of conſequence, does not amount to that ſort of aſſurance which alone can, properly,

perly and philoſophically ſpeaking, be entitled to the character of *knowledge*. And hence it is, as I take it, that he ſpeaks of *this* method of conviction, and the aſſent it produces, and alſo of the aſſurance we have of *any other* truth deducible *from this*, as not the proper exerciſe or effect of *reaſon*. Becauſe, though *every* ſpecies of deduction by the uſe of that faculty be, in a looſe and popular ſenſe, diſtinguiſhed by that name; yet *reaſoning*, truly and philoſophically ſpeaking, always procedes upon *neceſſary principles*, through *ſteps* alſo *neceſſarily* connected, to *concluſions* therefore which alſo *cannot but* take place, *i. e.* which are *abſolutely* and *infallibly* certain.

Thus, when he applies his argument to the diſcuſſion of the important point concerning the general credibility of *miracles*, he declares himſelf of opinion, that the notion of their credibility is not warrantable upon any principles of *reaſoning*. His meaning, I preſume, is, that no matter of *fact* contrary to univerſal experience, being credible, but upon the previous aſſurance of a *power* in nature adequate to the production of it, that is, upon the ſuppoſed *neceſſary* connection of *cauſe* and *effect*; if ſuch neceſſary connection cannot be *ſhewn* to exiſt in nature, we cannot arrive at *knowledge*, properly ſo called, with reſpect to the exiſtence of ſuch *power*. It will therefore only be matter of *belief*, upon ar-

guments or proofs, (as Mr. *Locke* ſays) "that "are indeed found to *perſuade* us to receive it "as true, though without *certain knowledge* "that it is ſo."———And hence alſo, *miracles* will only be matter of *belief*; becauſe not having any *knowledge* of the requiſite *power* that amounts to more than this, the iſſue is to be tried by the appeal to *experience*; which holding *univerſally againſt* the exiſtence of them, and but *partially* confirming the evidence *in favour* of them, will determine (according to Mr. *H.*) *againſt* the credibility of them.

And hence we may account for his reſolving the general reception chriſtianity has met with, into the principle of *faith*: By which he means, I ſuppoſe, that it is not credible on the grounds of what, according to the *ſtrictly* philoſophical ſenſe of the word, we underſtand by *reaſoning*; *viz.* not on the principles of mathematical *demonſtration*. Not that we *believe* in conſequence of an *immediate* impulſe; nor that *deductions* are not made uſe of, e'er the mind is wrought up to the aſſent it yields: But, that the *firſt* principles of our deductions being *involuntary* perſuaſions, of which we can give no account, the *argument* conſtructed upon them does not proceed by *neceſſarily* connected proofs; and ſo, the whole proceſs, however it be an act of *nature*, is not an exerciſe of

reaſon,

reaſon, in the philoſophical acceptation of the term.——This gentleman indeed, for ought I know, may be as great an *unbeliever* as his adverſaries have endeavoured to repreſent him: But it is to God and himſelf only, for any thing that can be inferred from the argument he has hitherto made public. His own reaſonings muſt have operated upon his mind in a very extraordinary manner indeed, if, in *mere* conſequence of *them*, he is either an *infidel* or an *enthuſiaſt*. But this by the way.

Amongſt the proper *objects* of *this* ſpecies of argumentation, we may reckon all ſuch as fall under our notice as *moral relations:* All propoſitions expreſſive of the ſeveral obligations enumerated by writers in that branch of ſcience. In all which, the ſeveral connections, by which the proof is carried on, ſubſiſt indeed by the *unavoidable* perception of their Reality; yet by no *neceſſity* in the *nature* of things. In which the mind indeed does *intuitively* perceive an agreement or diſagreement of certain ideas with others; yet where it does not perceive a *natural abſurdity* in ſuppoſing the *contrary* in any caſe. Now, in ſuch a ſtate of things, though the *concluſion* following any *deduction* be ever ſo *natural*, it will not be *neceſſary*; and therefore, however *true* likewiſe, it will not be *demonſtratively* ſo. There certainly is a difference like that we

are contending for, between perceptions ſimply *natural*, and perceptions *neceſſary* as well as *natural*: Between ſuch as *barely* cannot be rooted out, and ſuch as cannot but be ſuppoſed to take place, *without a natural contradiction*. And it is according as the proof, in any caſe, proceeds upon, and is upheld by, truths founded on the *one* or the *other* of theſe; it is this, I ſay, that conſtitutes, as I imagine, the eſſential difference between *demonſtration* and *moral Evidence*.

It was his not attending to this material difference, that led Mr. *Locke*, I ſuppoſe, into that favourite opinion of his, that *morality* is as capable of *demonſtration* as *mathematics*. We find him perpetually dwelling upon ſuch arguments as this, *viz.* that "to have ſuch "an agreement or diſagreement as may *in-* "*tuitively* be perceived," is the privilege of *moral* ideas, as well as of thoſe of *quantity*: And that, "*where* the mind can *perceive* "the immediate agreement or diſagreement "that is between them, *there* it is capable of "intuitive knowledge: And where it has *in-* "*tuitive* knowledge, there it is capable of "*demonſtration* *." Not conſidering the difference, which ſurely there is, betwixt *intuitively* knowing a thing to be ſo or ſo, and knowing *withal* that it *cannot but* be ſo: Betwixt a *natural* perception (however unavoidable)

* Eſſay on human underſtanding, B. IV. C. ii. §. 9.

avoidable) of an agreement or diſagreement between certain ideas, which is ſufficient indeed to furniſh a *moral* proof; and the *farther* perception that the *contrary* would be a *natural abſurdity*, which, as I take it, is *eſſentially* neceſſary to render it a *demonſtrative* one. I will inſtance in a particular, in which Mr. *Locke* has alſo inſtanced. *Where there is no property, there can be no injuſtice.* This Mr. *Locke* thinks as capable of *demonſtration* as any propoſition in *Euclid.* But I would aſk Mr. *Locke* or any gentleman of the ſame opinion, what is the proper foundation of this truth, *viz. That it is wrong or unfit to invade the property of another man?* Is it that ſuch invaſion is *contrary* to any *natural* truth, or implies any *natural contradiction* or abſurdity? If not; then is it not a *neceſſary* truth, in the ſame ſenſe in which thoſe are ſo, that are the proper foundation of *demonſtrative* proof. I grant indeed, that it is, *unavoidably*, with reſpect to the human mind, *perceived* to be ſo; and therefore may be depended upon as an *actual* truth: But if the *contrary* ſuppoſition may take place *without* a contradiction, it cannot, in that caſe, be the ground of a *demonſtration.* The ſundry connections in nature, of this kind, which I cannot but *perceive* to obtain, may, for ought I ſee to the contrary, *ceaſe* to obtain: And, on that account, however neceſſary, with regard to the frame of *my* na-

nature, are not ſo with reſpect to the conſtitution of *their own*. The ſame may be affirmed of all propoſitions expreſſive of *moral* relations of every kind. *That obedience is due from children to their parents.*——*And an affectionate attention to their welfare, reciprocally due from parents to their children,* are truths I am in no ſort of doubt about, as I am not about ſuch as are either the *ground* or *reſult* of any *demonſtration* in *Euclid*: But I am not aſſured of them upon the *ſame* principle, nor with a certainty that can properly be called or compared to *mathematical,* either in *kind* or *degree.* And the difference, as I take it, is this. That whereas all *moral* relations I cannot but be *perſuaded* to be ſuch as I take them to be: The *others* I am clearly *convinced, cannot but* be ſuch as I ſee them to be. In the former caſe therefore, we have a neceſſary perception of an *actual* exiſtence; in the latter, an equally neceſſary perception of a *neceſſary* exiſtence. In a word, the former I *believe* to be truths, the latter I *know* to be ſuch.

Dr. *Clarke* hath not only followed Mr. *Locke* in his opinion, but, in his excellent Syſtem of the *evidences of natural religion,* hath endeavoured to reduce it to practice. And his proofs indeed I admit; and in their full extent: But that they are of the *kind* he ſuppoſes them to be, is not to be admitted.

I allow that he has made good his point; and with as much clearneſs as the ſubject is capable of: But that he has, or that *any other* perſon can, make it good to a *demonſtration*, is impoſſible, as I conceive, from the nature of the ſubject. For propoſitions of that kind can only be argued by a ſpecies of proof deduced from our *moral perceptions*; whereas every *demonſtration* is a proceſs grounded upon *intellectual truth*.

SECT. III.

A Third method in which the faculty of human reaſon is exerciſed, is that whereby it infers the exiſtence of future *events*, by a judgment formed upon its paſt obſervation and experience.

The proceſs of the mind, in this operation, ſeems to be as follows. *Experience* informs us, that, in what we call the *courſe of nature*, i. e. in the ordinary train of daily occurrences, a certain connection, whenſoever it ariſes, hath perpetually obtained between ſuch and ſuch events. *Fire*, for inſtance, hath never been applied to an object endued with *ſenſe*, but *heat* hath alſo been obſerved to attend ſuch application. In like manner, bodily

bodily *nouriſhment* is the *natural conſequence* of *food:* And *impulſe* hath uniformly been *attended,* where nothing hath appeared to counteract its tendency, with *motion* in the body impelled. And on this, as a foundation, we eſtabliſhed it as a maxim, or certain truth, that events ſo invariably conjoined *in fact,* are alſo intimately connected by an indiſſoluble neceſſity in their *nature.* And hence we lay our account, that whenever any one of the ſaid events takes place again, its *hitherto obſerved* concomitant will *infallibly* take place likewiſe. Thus, fire *hath always been obſerved* to warm; fire therefore is *neceſſarily productive* of heat: And conſequently, fire, whenever it is applied to a ſenſitive object, will *infallibly* create the *uſual* ſenſation in every *future* inſtance. And ſo of the reſt.

Now, would we truly be informed how far the inference in ſuch caſes is juſt, and conſequently, how far we may *reaſonably* place a confidence in *ſuch* a method of induction and proof; we have nothing to do, but to examine this proceſs, ſtep by ſtep, and inquire how far the ſeveral parts ſtand connected with one another.

The *firſt principle* then, upon which we ſet out, is, we ſee, the *paſt obſervation* of an *actual* conjunction of certain facts with one another;

another; about the reality of which we cannot entertain a doubt, if any truſt can be repoſed in our ſenſes, and the reports they ſeverally make. *So far* then, we are upon good ground.

From this *obſervation* we advance, in the next place, to a *ſettled notion* that facts or events thus uniformly *co-exiſting*, are incapable, from a *neceſſity in their nature*, of exiſting *independently*. But here I would aſk, from what principle of *reaſoning* it is, that we pretend to juſtify or ſupport this notion. Can we, from any thing we know of the *nature* of any event, and abſtracted from all *former obſervation*, infer the *conſequences* of ſuch events taking place? No. Then is there no *neceſſity*, whenever it does take place, that ſuch or ſuch particular conſequence, ſhould follow from it. Again, ſuppoſe we *have obſerved* a particular conſequence to have *always* attended ſuch event, whenever itſelf has occurred: Is there any *natural contradiction* in ſuppoſing that it may occur hereafter *without* any ſuch attendant circumſtance? No. Then, as there is no *neceſſity*, from the *nature* of it, that any particular event ſhould be followed by any particular conſequence: So neither is there any *neceſſary* connection between the *paſt* conjunction of ſuch event with its conſequence, and the *future*. Here then the argument fails of that *union*, in its ſeveral parts,

which is ſo neceſſary in the compoſition of a *rational* evidence; and without which, we can never come to a concluſion in which the mind may repoſe with an *abſolute* and *complete* aſſurance.

This general review may ſuffice to make it appear, that all our expectations, with regard to future events, are nothing more than ſo many *inferences of the mind* from the *ſuppoſed* neceſſary exiſtence of a certain relation, *arbitrarily* aſſumed upon the ground of our *paſt experience*. A certain combination of things has been *obſerved* in inſtances that have gone before: We *ſuppoſe* this to have proceeded from the unavoidable conſtitution of their *nature*: And *conclude* from thence, that, in ſimilar circumſtances, a combination, in all reſpects the ſame, will obtain in every *future* inſtance.

From what has been ſaid, it follows, that in *this* ſpecies of reaſoning, though the *ground work* of all be a *certain truth*, yet the *argument* conſtructed upon it is a downright *preſumption*. A preſumption indeed, not only not to be *juſtified* upon the principles of *reaſon*; but even not to be *accounted for* in any other manner, than by a general reſolution of it into the *frame* and *conſtitution* of the human ſoul. Now, where the *argument* is but *preſumptive*, the *concluſion* muſt be *precarious*; and the operation

operation of it on the mind proportionably fail of thoſe powerful effects which attend the inlightened ſtate of *knowledge* and *conviction*. The reſult, in ſuch caſe, is indeed *opinion* inſtead of *knowledge*: And the *ſuppoſed* truth we *habitually* infer, what, in reſpect of the peculiar appearance of it to the mind, we may indeed call *veriſimilar* or *likely*; but what, from no circumſtance we can infer the *reality* of, or, on any conſideration, expect with *certainty*.

We collect from hence however, that all our reaſonings upon *matters of fact* are immediately founded upon an habitual perſuaſion of a *neceſſary* connection in nature, ariſing from what we have obſerved of the *actual* connection which ſubſiſts between *particular* cauſes, and *particular* effects. At the ſame time, all our *knowledge* of ſuch connection being purely derived from *experience* and *obſervation*, our reaſonings on this ſubject, may ultimately be referred to *theſe* as their foundation.

From this it follows then, that though an argument or courſe of reaſoning, founded on *experience*, be, at beſt, but of a *preſumptive* nature, yet the preſumption will be *ſtronger*, where our experience has been *more general*; and the ſuppoſed truth which ſuch preſumption ſuggeſts, have a greater appearance of *veriſimilitude* or probability, accordingly. And univerſally, the weight of the evidence, the

validity of the concluſion, and ſo alſo the probability of the truth inferred, in any particular inſtance, will *vary* with, and be *proportioned* to, our experience with reſpect to its eventuality or non-eventuality in ſimilar inſtances heretofore.

Thus, if I know by *experience*, that an event, every time (which we will ſuppoſe to be *ten*) that it hath hitherto taken place, hath been regularly followed by *one and the ſame* determinate conſequence: The *probability* that ſuch conſequence ſhall take place in ſimilar circumſtances hereafter, being the *natural reſult* of, and *proportioned* to that experience, will be as 10: 0; for it has followed it *ten* times, and failed to do ſo *never*. More particularly; the chance of its *happening* (as far as there is *any* chance of its happening, *merely* from its having happened *already*) will manifeſtly be $\frac{10}{10}$, of its *not* happening $\frac{0}{10}$; the *ſuperior* probability therefore on the former ſide, $\frac{10}{10}$, or integer; *i. e.* in other words, events; which are *conformable* to our paſt experience, *univerſally*, are credible in the *higheſt* degree which the nature of ſuch things is capable of; for there is *all* the probability of their coming to paſs, in ſimilar circumſtances, that can poſſibly be inferred by the *only* rule whereby we can judge at all whether they will come to paſs or not. If the ſame event ſhould have produced a certain conſequence

but

but *five* times out of the *ten* itſelf had been obſerved; in that caſe, the reſpective probabilities will be as 5 : 5; the value of the chance on each ſide, $\frac{5}{10}$; and the *ſuperior* probability of that conſequence's taking place, equal to *nothing*; *i. e.* events, which in the courſe of nature, have been obſerved, in certain circumſtances, to *happen* and *not* happen with *equal* regularity, we have *equal* grounds to *expect* and *not* expect. Once more, where the ſuppoſed *eventuality* and *non-eventuality* of ſuch conſequence have been as 4 : 6, the *probability* will be accordingly. In *this* caſe therefore, the ſeparate probabilities will $\frac{4}{10}$ and $\frac{6}{10}$, and the difference $\frac{2}{10}$ in favour of the future *non-exiſtence* of ſuch conſequence. The probability therefore will here be transferred to the oppoſite ſide. The ſame rule will hold for eſtimating the degrees of credibility in all caſes. From whence it will appear, laſtly, that ſuch events as are *totally contrary* to our paſt experience, in all reſpects, we cannot only have no reaſon to expect ſhould happen, but have the *higheſt* reaſon, the nature of the caſe is capable of, to be aſſured they will *not* happen. *As far as* we can judge from our obſervations upon the order of nature, in general, it will be utterly *incredible* that they ſhould.

SECT.

SECT. IV.

IF evidence, of any kind, be a juſt ground of aſſent, it naturally follows, that, where *different* kinds or degrees of evidence interfere with one another, *that* will be intitled to our admiſſion, which appears the ſtronger on a due compariſon; and in a degree *proportioned* to their difference.

If *five witneſſes* maintain the *affirmative* of any quæſtion, againſt *three* others of *equal veracity*, who aſſert the *negative*; the probability, *determinable by human teſtimony*, will be on the ſide of the former. And the *likelihood* that the affirmative is *true*, will be to the *likelihood* that it is *falſe*, in the ratio of thoſe numbers, *viz.* as 5 : 3.

If an *experiment*, *five* times repeted, hath been uniformly attended with the ſame event, which, in *three* ſucceding repetitions of the ſame, with circumſtances *exactly ſimilar*, hath *failed* to do ſo; the probability that that event *will* follow on any future trial, *determinable by paſt experience*, will be to the probability that it will *not*, in the *ſame* proportion; upon the whole therefore, it is probable that it *will*.

If the evidence of *teſtimony*, on one ſide, be oppoſed to that of *experience* on the other; we are then to conſider, what the value or weight of human teſtimony is, in * *general*; and compare it with the quantity of experience, with reſpect to the *particular* fact in queſtion.

Now the value of *human teſtimony*, as ſuch, is itſelf only to be had from an appeale to *paſt experience*, i. e. by conſidering how far *facts* in general have been found to agree with the *reports* of men concerning them. And, with reſpect to this point, it may certainly be affirmed with truth, that ſuch agreement has not obtained *univerſally*; and conſequently, that human *teſtimony*, as ſuch, is at beſt, but upon a level, in point of authority, with a *general* experience. In a word, that the moſt that can be ſaid with juſtice in its behalf, is, that it is, upon the whole, *more* probable that it ſhould be *true*, than that it ſhould be *falſe*.

On

* This is laid down as a *general* rule. With reſpect to ſuch events indeed as are *conformable* in any degree with our paſt experience, we have nothing to do, but to enquire into the *particular* credit of the atteſtation that is tendered on their behalf: Becauſe ſuch events, being *credible* in themſelves, are capable of being aſcertained by witneſſes that are *credible* in like manner. But as events alſo may fall under our examination, which are totally *inconſiſtent* with our paſt experience, and which are conſequently *incredible* in their own nature; the quæſtion then will be, whether teſtimony, however credible, will intitle them to our aſſent? And, in order to know that, the value of human teſtimony, *as ſuch*, muſt be aſcertained in the firſt place.

On this account, whatever human *teſtimony*, as ſuch, may contribute to the eſtabliſhment of a fact, which is *conformable* in any degree, with our paſt *experience*, in like caſes; it cannot be of weight when thrown into the balance *againſt* an experience that has *univerſally* obtained. Our conviction and aſſent, we may obſerve, depends, in ſuch caſe, on two ſeparate conſiderations, *viz.* the truth of the *atteſtation*, and the ſuffrage of paſt *experience*. Now, as far as the *former* of theſe is concerned, there is, with a *ſuperior* probability indeed that the allegation is *true*, a *degree* of probability at the ſame time, that it is *falſe*; whilſt we find, when we reflect upon the *latter*, the *higheſt* probability there *can be* of its *falſhood*, without even the *loweſt* ground of preſumption imaginable in favour of its truth. When a fact therefore is atteſted, which is abſolutely *inconſiſtent* with the *whole* tenor of human experience; *as far as* teſtimony, in general, and experience, in reſpect of ſuch matters, are *alone* concerned in regulating our judgment, and determining our aſſent, ſuch atteſtation can never be of real efficacy, nor conſequently, the fact ſupported by it intitled to our admiſſion.

At the ſame time however, that ſo great a ſtreſs is laid upon the argument founded in *experience*, it is not on account of any *intrinſic*

trinſec authority of its own; ſince, as hath been already obſerved, the argument, ariſing from this conſideration, is, in fact, nothing better than a downright *preſumtion*. When therefore we reject a *Teſtimony*, that oppoſes itſelf to the *univerſal experience* of mankind, it is not becauſe ſuch experience is, in itſelf, any *argument*, properly ſpeaking, againſt the belief of the fact atteſted; but becauſe, as far as experience may be urged as a foundation of belief at all, the preference will naturally become due to the *greater* degree of it, when ſet in competition with one that is *leſs*.

SECT. V.

THESE conſiderations upon the method of reaſoning from *experience*, having naturally led us into an inquiry concerning the credibility of Events in general; it is farther incumbent upon us, before we diſmiſs that ſubject, to inquire alſo, whether *experience*, in theſe matters, be our *only* rule of judgment. For, ſince it does not, properly ſpeaking, furniſh any kind of *argument* in this caſe, one way or the other, there is planely no *neceſſity* in the nature of things to ſuppoſe, but that ſuch Events alſo may *occaſionally* take place, as, being beſide the general order, have hi-

 therto

therto indeed *never* fallen within our notice. The only quæſtion will be, whether it is *probable* that they ſhould? Whether there are ſufficient grounds, from any conſideration of *another* kind, to ſuppoſe that events *may* come to paſs, which, as far as we can judge from *Experience* indeed, there are the higheſt reaſons to imagine will *not?*

Now, if the order of nature be ſubject to a *power* exiſting in the univerſe, which is capable of producing a change in it, events *beſide* that order may certainly take place at any time: And if the agent inveſted with ſuch *Power*, be farther diſpoſed, by the requiſite qualifications of *Wiſdom* and *Goodneſs*, to produce a change of that ſort, on a ſuppoſition of it's expediency, the improbability of ſuch Events, as far as it ariſes from their *contrariety* to our *paſt Experience*, will, in proportion as theſe particulars can be aſcertained to the mind, vaniſh and diſappear.

Again; if every thing was *produced*, by the energy and operation of ſome active *principle* exiſting in the univerſe, we cannot doubt of the exiſtence alſo of ſuch a *Power* as we have been ſpeaking of; becauſe a *Power* to ordain, is alſo a *Power* to *re-ordain*:—Nor of the farther qualifications of the ſame agent, in reſpect of *Wiſdom* and *Goodneſs*; becauſe whatever grounds there be to ſuppoſe the exiſtence of

of a *firſt Cauſe* itſelf, the *latter* perfections will be in like manner deducible from the *method* and viſible *ends* of it's appointments. For, whatever diſputes might otherwiſe ariſe concerning the neceſſity of a *wiſe* agent to ſolve the appearances of *wiſdom* and *providence* in the ſyſtem of nature; if it be once allowed, that every finite being did originally procede from a *principle* of *cauſation*, it will naturally follow, and by parity of reaſoning, that every *wiſe* and *good* appointment did originally procede alſo from a *principle* of *wiſdom* and *goodneſs*. And hence, the only remaining quæſtion will be, whether the ſyſtem we behold was actually a *production*, in which ſome præ-exiſtent nature concurred—and, *on what grounds*, we aſſert this to have been the real truth of the caſe? And, for the reſolution of this quæſtion, we are diligently to ſearch in the reſpective ſources of human knowlege; and ſee, what each may, of itſelf, or in conjunction with the reſt, contribute to the diſcovery.

That none of theſe then do, *directly*, and *immediately*, and *ſeparately* taken, ſuggeſt this truth, is obvious on the ſlighteſt attention. Not *Experience*; for in that caſe it would be the object of ſenſe. Not the *moral* faculty of *Perception*; for that extends but to the general information that no finite nature could begin to exiſt of itſelf, which is

not the *whole* point in quæſtion. Nor finally, is the exiſtence of a firſt cauſe a *neceſſary* truth in the eye of *Reaſon*; becauſe no contradiction, as far as we know, is implied in the ſuppoſition of the contrary.

Let us inquire then, in the next place, how far experience and reaſon *together* will carry us.

The univerſe then, as far as it lies open to our view, is evidently a ſyſtem of finite Natures; of which all our knowledge however is confined to this, that every thing ſubſiſts by a perpetual ſucceſſion, and that that ſucceſſion is regulated by an invariable law. Where certain Events, in *ſimilar* circumſtances, are uniformly attended with the *ſame* conſequences, without the leaſt exception, even of a ſingle inſtance, to the contrary. Now an ordinary attention to theſe particulars cannot fail, amongſt others, to ſuggeſt the following obſervation, *viz.* that, in all this train of mutable and tranſitory being, " nothing did " ever in reality *take place*, which had not " immediate relation to, and *actual* Con- " junction with, ſomething that *went before* " it.

The obſervation I thus make upon what paſſes within my ſight, I transfer to every thing of the *ſame* kind, whether it fall under my

my inſpection, or not. I conclude therefore from hence, and think I have good ground to conclude, that all *finite* exiſtences whatever, (ſince it is evidently the caſe with all I am acquainted with) did at firſt take place in *like* manner, *i. e.* under the ſimilar circumſtances of an immediate relation to, and *actual* conjunction with, ſome extraneous and *præ-exiſtent* Nature likewiſe.

Thus far then, as I apprehend, our concluſion will be juſt: And we have all the aſſurance that *Reaſon* grounded upon *Experience* can in any caſe afford, that, " antecedently " to the exiſtence of every finite Nature in " the univerſe, ſomething elſe had being, on " the juxta-poſition, application, acceſſion, " intervention, (or whatever we pleaſe to call " it) of which, thoſe ſeveral finite Natures " entered upon their reſpective ſtations in the " ſyſtem of which they are a part."—But *beyond* this, we cannot, on *this* foundation, procede a ſingle ſtep. Permanent as may ſeem that order in which natural Events take place; unvaried as is, in fact, the law of their ſucceſſion; and however uniform the conjunction that has hitherto obtained;—to that *ſingle* fact is *all* our *knowlege* of their natures limited. *Of* any thing we ſee, this is the moſt we can *declare*. *From* any thing we ſee therefore, this is the moſt we can *infer*. That union *may* procede from a Con-

Connection in their *natures*, for any thing, it is true, that we know to the contrary; but, as the *ſingle* circumſtance of their union does by no means point it out, ſuch connection, for any light it is at all probable we ſhall ever receive from experience, muſt be a ſecret to all eternity. Hence, however we may be aſſured of a præ-exiſtent Nature, under the ſeveral circumſtances juſt now enumerated, for a principle of *Cauſation* we are ſtill to ſeek. In a word, we gather from *Experience* indeed, that every thing, which *began* to be, has a certain relation to ſomething that exiſted before it; but our knowlege of that relation, deducible from this ſource, amounts to nothing more than the ſimple conſideration of them as *antecedent* and *conſequent* in the order of time.

This then may ſuffice to ſhew how little is to be expected in this point from the *analytical* method of argumentation; and where men have nothing to procede upon but their own *Experience*.

But neither does *Reaſon* promiſe to be a better guide, if we intend to reſt the iſſue on the deciſions of that *alone*. Much indeed has been pretended to, in the deductions *à priori*; which, proceding upon certain premiſes, through the ſeveral ſteps of a regular proceſs, terminating in a concluſion to this purpoſe, have

have been miſtaken, by ſuch as uſed them, for *demonſtrative* proofs, though the *eſſential* character has all along been wanting, and what alone could intitle them to the name they bear. *Demonſtration* procedes, in all caſes, upon ſome *neceſſary* truth, as the firſt and fundamental principle, upon which it's weight and efficacy depends: And, where this is not to be had, whatever be the ſubject of our inquiry, and whatever light that ſubject may be capable of receiving from any *other* quarter, it certainly is not ſuſceptible of *demonſtrative* evidence. And this is manifeſtly the caſe with reſpect to every argument of the *ſynthetical* kind, that has ever been taken in hand, with the proſpect or intention of eſtabliſhing the truth now under conſideration, *viz.* the exiſtence of the firſt and univerſal *Cauſe*. We may fairly challenge every Reaſoner, of every claſs, to produce a ſingle proceſs tending to confirm this opinion which ſets out, and is founded upon, what may properly be called a *neceſſary* truth; a truth, of which the direct contrary may not be affirmed conſiſtently with all that we know of the natures of things, and without any juſt offence to *Reaſon*, properly ſo called. If this *is* to be done, I ſhall readily give up the point I am contending for: If it is *not*, then neither is the exiſtence of a principle of *Cauſation* capable of being eſtabliſhed on that ſort of proof which is properly called *demonſtrative*.

Now,

Now, " that the ſeveral exiſtences we " every where contemplate, could not have " taken place *ſingly* and *independently*."— this, I ſay, is a truth, of which no other aſſurances can be had, than ſuch as our *inward perceptions* afford, and *Nature* imperceptibly ſuggeſts. We cannot indeed perſuade ourſelves that they *ſhould* do ſo; nay more, we *feel*, we are *perſuaded* they could *not*: But no *reaſon* can be ſhewn why they ſhould *not*; and therefore nothing can be admitted as a *certainty*, which is deducible only from ſuch a ſuppoſition. No argument can be *univerſally* concluſive, which procedes upon any other than *inconteſtibly* certain principles: And no principles can be *inconteſtibly* certain, however we may *otherwiſe* be *perſuaded* of their truth, if nothing hinders, in the *nature of things*, but that the *contrary* alſo may be true.

For theſe reaſons then, we ſee, the argument for the exiſtence of a firſt cauſe, which procedes upon the ſuppoſed *neceſſary* connection between cauſes and effects, will always be liable to exceptions (conſidered as a *demonſtrative* proof) unleſs that neceſſity can firſt be made out. For *demonſtrative* proof is always founded upon, not barely *ſelf-evident*, for this will not ſuffice, unleſs alſo they be neceſſary truths. I am indeed *perſuaded*, in my own

own mind, of that neceſſary connection we are ſpeaking of; ſo is another; ſo is the bulk of mankind: And I think moreover, that every man, ſo perſuaded, muſt naturally infer from hence the exiſtence of a ſupreme firſt Cauſe. But then we muſt obſerve, that the force of a concluſion ſo wrought up, is only of a *perſonal* and *private* nature: What I cannot indeed but draw for myſelf; but what at the ſame time, I cannot preſs, as a *reaſoner*, upon another perſon. It is one thing to be perſuaded, myſelf; and to be able, in this caſe, to convince my neighbour, clearly another. Whatever is to me ſelf-evident, I cannot but admit; and I cannot but admit whatever is a natural conſequence of that: But if the ſame principle, however evident to *me*, be not alſo *neceſſary*, I cannot urge the conſequences of it upon *another* perſon's mind. I cannot, in that caſe, even preſume to tender an argument for this purpoſe, without previouſly requiring him to ſubſcribe to my firſt principles; whereas, in order to a proof that is truly *demonſtrative*, a *poſtulatum* of this kind can never be neceſſary. Every principle upon which *demonſtrative* reaſoning procedes, being a *neceſſary* truth, and what no man *can* refuſe his aſſent to, if he would.

Men of ſtrict probity, and who, as ſuch, have a ſtrong attachment to truth in general, if they happen at the ſame time to have at-

tended but little to what paſſes in their own breaſts, while Opinions of any kind are forming into habits, frequently miſapprehend what they *feel* to be true, for what is capable of being *demonſtrated.* From an apparent ſimilarity in their general effects upon the mind, the impreſſions of *nature* are miſtaken, by ſuch perſons, for the dictates of *reaſon:* And they are apt to take it amiſs, if ſuch as have carried their inquiries farther, repreſent this as inaccurate or unphiloſophical; though, by tracing their concluſions to the ſource they ſpring from, they are able to ſpecify the *difference* they allude to, and thereby juſtify the *diſtinction* they contend for.

But human nature will ſtill be human nature, however men may err, for want of examination, in their ſeveral opinions, about the quality or extent of its powers: And we can have no juſt quarrel with thoſe who have made it their ſtudy, if it appear, on due inquiry, that they have but repreſented things as they really are. However we may except againſt the diſpoſition of things on the globe, are we angry with the geographer who transfers it into his chart? In either caſe indeed, if we dare not blaſpheme the artiſt who hath wrought up the ſcene itſelf, what have we to complain of in the philoſopher, who hath but copied it for our inſpection?

It ſhould ſeem then, that the important truth under our preſent conſideration, is not defenſible, after all, on *thoſe* principles, which mankind have hitherto ſuppoſed to be the only grounds of its admiſſion. The exiſtence of a firſt cauſe is not, it ſeems, capable of being *demonſtrated?* I anſwer, in one word, No. It neither is, nor can be, the object of *that* ſpecies of proof, becauſe it is not deducible from any principle of *neceſſary* truth. It is ordered otherwiſe in the nature and conſtitution of ourſelves, and every thing about us. And if we will not be contented with ſuch knowledge, in this point, as the information provided on that behalf is calculated to ſupply us with; our proper quarrel is, not with this or that philoſopher, who does but ſtate the caſe to us as it really is, but with the author of Nature himſelf, by whoſe particular appointment things are as they are.

The proper evidence then, on which this Truth is ſo univerſally eſtabliſhed, and on which alone it is capable of a rational defence, is, as I conceive, of a mix'd and compound nature. *Experience*, alone, will not point it out to the niceſt obſervation: Nor will *Reaſon* ſuccede better in the inveſtigation hereof where *Nature* has not done her part beforehand. To the *joint* aſſiſtance of them *all* we are indebted for the diſcovery: And, how-

ever it may flatter a miſtaken pride to ſuppoſe the contrary, yet true it is beyond all reaſonable ground of controverſy, that the ſeveral deductions to this purpoſe, which we readily acknowledge to be the work, and indeed the proper province of *reaſon*, are originally founded upon, and of no force or efficacy without certain firſt principles of a very different kind, and of which no juſt account can poſſibly be given, which does not fairly reſolve them at laſt into the make and conſtitution of our *nature*.

Nor is it any diſparagement to the argument we are perſuing, that we are forced to try the iſſue of it upon *this* foundation. For *truth* ſurely will ever be entitled to our reception, on *whatever* recommendation it approaches: As its evidences will never fail of their proper *force*, though it be ſhewn that leſs diſcerning perſons have miſtaken the proper *character* of them. Its authority indeed can never be impaired, while *nature* vouchſafes her patronage, however *Reaſon* may fail, in particular inſtances, to adminiſter thoſe farther ſuccors, we might promiſe ourſelves would be furniſhed alſo from *that* quarter. Do philoſophers then upbraid us with the want of knowledge? Be aſſured, it is in ſuch points only, where *perfect* knowledge is not neceſſary. Do they tell us that our concluſions are not the effect of *demonſtrative* evi-

dence?

dence? Our anſwer is, that they are built however on deductions from principles of undoubted truth; and are the genuine information of a light more univerſal in its nature, and extenſive in its Influence. And 'tis a folly ſure to repine that truths of any kind were not communicated to us on *mathematical* evidence, while every man bears in his own breaſt a perpetual teſtimony to their reality; which, though no reaſoning can confirm, no reaſoning can invalidate; and if not to be aſſerted on the footing of *argument*, the moſt ſceptical ſuggeſtions ſhall never overturn.

The teſtimony I mean, is that indelible *perſuaſion* of the human mind, in conſequence of which we are led to acknowlege it as a certain truth, that "Nothing could ever "have begun to exiſt of itſelf;" but that every thing, which ever *began* to exiſt at all, did really flow from ſome præ-exiſtent nature, whoſe active influence introduced it on the ſtage of being. In eſtabliſhing which perſuaſion, *reaſon* can have no ſhare, ſince there is nothing, properly ſpeaking, *unreaſonable* in ſuppoſing the contrary. *Experience* likewiſe, only reaching, to *actual* connections, is of no authority, in the preſent caſe, any more than *Reaſon*. It informs us indeed what *has* been, and is a ground of *preſumption* concerning what *will* be: But that either what

what has been or will be, has been or will be of *natural neceſſity*, is more than can be collected from any thing we have opportunity of obſerving. Experience indeed may lead us to *this* concluſion, that " nothing ever did " begin to exiſt without a relation of *ſome* " *kind or other* to ſomething antecedent to " itſelf in the order of time ;" but that finite exiſtences have any *farther* relation to, *i. e.* any *intimate* and *neceſſary* connection with ſuch antecedent nature, as the *productive cauſe* of them, is a perſuaſion from a *different* principle. It is indeed to be accounted for from *nature* and *conſtitution* only. It is a truth I *feel* the force, but do not *ſee* the neceſſity of: And, in a word, what, after all my ſearch, I cannot but ſit down in the firm *belief* of, though I do not *know*, of a certainty, but that the contrary is poſſible in like manner.

And from this, as a *principle* which I cannot doubt the truth of, I conſider, in the next place, what may fairly be *deduced*. *Perſuaded* then that every finite exiſtence muſt neceſſarily be a *production*; and finding that the ſeveral exiſtences in the ſyſtem about us *are* of a finite nature; my *Reaſon* infers from hence, as an undeniable conſequence, that every exiſtence in that ſyſtem did *actually* commence under that very circumſtance. And hence ariſes my *perſonal* conviction of the

the *actual* exiſtence of the ſupreme univerſa cauſe of all things.

SECT. VI.

UPON whatever grounds we are thus induced to believe the exiſtence of a *principle of cauſation* itſelf, we cannot but be aſſured, in the ſame degree, that it is attended, in the Object or Being to which it is referred, with the ſeveral attributes of conſummate *wiſdom* and *goodneſs*, as well as *ability*; ſince, if every thing was *produced*, *wiſe* and *beneficial* effects were neceſſarily produced by a *wiſe* and *beneficient* cauſe. This is but a natural conſequence from the premiſes we are now in poſſeſſion of.

From thoſe heights of knowledge therefore, which *nature* and *reaſon* thus *jointly* aſſiſt us to attain, if we deſcend once more to the contemplation of that lower ſcene from which we ſet out on this inquiry, the firſt thing, and what will indeed immediately ſuggeſt itſelf to our notice, is, that every thing we there behold, muſt, in conſequence of what we lately diſcovered of the nature of the *ſupreme* Being, be abſolutely ſubject to the determinations of his will. Hence, that general

general plan, which was the effect of his appointment, he must ever be at liberty to vary at his pleasure. Any order there observed must be subject to his controll; and therefore, however established, must be *susceptible* of change.

I find indeed, as often as I consider these matters thoroughly, that an administration of government by *one general* method, answers a great variety of the most excellent purposes: And I conclude, that, on this account, a general method of administration was at first laid down, which, I find from experience, has, in the main, been all along persued. The known *wisdom* of the governor is also a pledge to me that he will never depart from this order, unless the nature of things should at any time require it: But, in that case, I have the *same* ground of assurance that he infallibly will. On this account, my *past experience* cannot be considered as an *exclusive* criterion of what it is probable shall come to pass or not: Because, though on *that* foundation it be credible, in general, that the established order shall *continue* to obtain; yet, if a *variation* of government should at any time appear *expedient*, the very sense of such expediency, concurring with the former considerations, will render a variation *credible*. In a word, *experience* indeed informs me, that, in the course of nature, certain laws *have* obtained with un-

unvaried order; and furniſhes a concluſion that the ſame uniformity *will* obtain in all future inſtances: But, being fully *perſuaded*, from what paſſes within me, of the exiſtence of a principle of *cauſation*, I am in the ſame degree aſſured alſo of the exiſtence of a *power* in nature, to which that order is ſubjected. To *me* therefore, the *poſſibility* of the *ſuſpenſion* of any particular law will be as credible as the *actual continuation* of it. And, being farther perſuaded of the *wiſdom* of that being, in whoſe hands I ſuppoſe the adminiſtration of things to be veſted; whenever *that* ſhall become a matter of wiſdom, the *actual* ſuſpenſion of it will be ſo to.

Obſerve here, that all this is offered only as an account of what paſſes in *my own* mind, where certain principles have taken deep root; and not as an argument that pretends to *univerſality*, or which I expect ſhould operate where thoſe principles are not acknowledged. It is a proceſs indeed in which *reaſon* does manifeſtly bear a part; yet where ſhe cannot, with propriety, be ſaid to take the *lead*: And where, whatever ſhe may contribute to the eſtabliſhment of our purpoſe, it is but as a commentator on the text of nature.

Upon the whole however, it cannot be denied, that, when we aſſert the exiſtence of a principle of *cauſation*, it is on as good

authority as any truth whatever is eſtabliſhed that is not *mathematically* deducible, or the *immediate* object of our ſenſes. It is *nature*'s own ſuggeſtion; and, as ſuch, of exactly the ſame authority, weight, and value, with any *other* concluſion of the mind, for which *nothing but* the influence and operation of *nature* can be pleaded. I will only add at preſent, by way of example, that it is therefore of *equal* authority with any inference of the mind carried into *futurity*, from the *obſervations* we have made upon events that are *paſt*. In the latter caſe indeed we argue *from* certainties, or known truths; but the *argument* itſelf is every whit as *arbitrary*, and indefenſible on the principles of *reaſoning*, as the ſuppoſition we have been conſidering, *viz.* that "Nothing could begin to exiſt of it-"ſelf." But of this more hereafter.

SECT. VII.

SINCE *experience* then, if we conſider the matter thoroughly, is in reality to be looked upon rather as a *natural* ground of *perſuaſion*, than as a *neceſſary* medium of conviction; (becauſe, though in conſequence of its operation upon the mind we do indeed believe, yet, at the ſame time, we cannot

aſſign

aſſign a *reaſon* for it; on this account) when the arguments we have formed on *that* foundation are brought in competition with ſuch as *neceſſarily* follow from principles indiſputably *natural* to the human mind, we ſhall find that the latter alſo will become intitled to our attention as much as the former. I conclude, for inſtance, that, if a ſtone or other heavy body be projected into the air, it will deſcend to the Earth again; and why? becauſe *Experience* informs me that, where no apparent cauſe has interfered to prevent it, *it always has* done ſo. In like manner, I conclude alſo that there is an active principle exiſting in the Univerſe, from whoſe energy and influence all finite Natures whatſoever derived their being; and why? becauſe I am *neceſſarily perſuaded*, in conſequence of my frame and conſtitution as a Man, that *nothing could ever have begun to exiſt of itſelf.* One of theſe concluſions ſeems as warrantable as the other. *Neither* has any foundation, properly ſpeaking, in *Reaſon*; and the voice of *Nature* declares for *both.* Each is as natural, as unavoidable, as juſtifiable as the other: And, in the buſineſs of reaſoning therefore, where they come in competition, each ſeems to deſerve alike our conſideration and regard.

Taking it for granted then, at preſent, that the Power or Principle, which at *firſt*

eſtabliſhed the order we behold, is ſufficient alſo for the *farther* purpoſes of *ſuſpending* or ſuperſeding the ſame at any time, there ſeems to be *equal reaſon* for believing, on the one hand, that the Courſe of Nature, in any aſſignable inſtance, *will* continue; and, on the other, that it *may* be over-ruled. Nay farther, if there be any reaſon to imagine that infinite *Wiſdom* and *Goodneſs* are concerned in the preſent ſuppoſed adminiſtration of things; (and there will always be exactly the ſame reaſon to imagine this, as to imagine that there is any adminiſtration of government at all,) in that caſe, whenever it can be farther made to appear that a ſuſpenſion of the courſe of Nature in any particular inſtance would be a matter of Wiſdom and Goodneſs, it is not only as probable that it *may* be *ſuſpended*, as that it *will continue*, but as probable alſo, in ſuch inſtance, that it *will* be ſuſpended. On the former of theſe ſuppoſitions, the *poſſibility* of it's ſuſpenſion is as credible as the *actual continuation* of it; on the latter, it's *actual ſuſpenſion* is as credible.

In comparing the evidences then that ariſe from *Teſtimony* on the one hand, and *Experience* on the other, caſes may occur, we ſee, in which it will be neceſſary to depart from the *general* rule: Since, what we may have good grounds to *reject*, on the appele to Experience *only*, may, on *other* conſiderations, be-

become equally intitled to our *admiſſion*; and, in that caſe, a competent *Teſtimony* will be ſufficient to turn the ſcale. It is *natural* indeed to believe that a ſtone projected into the air will deſcend to the earth again; but it is alſo *equally* natural to believe that it *may* be ſuſpended there. Nay farther —— it *may* become equally natural to believe that it *will* be ſuſpended there: And, in ſuch caſe, an atteſtation which is *more* likely to be *true* than *falſe*, will be ſufficient to determine the reality of the fact. And hence we may obſerve, upon the whole, that, as that which is *conformable*, in a proper degree, with our *Experience*, is always capable of being aſcertained by a competent *Teſtimony*; ſo, that alſo which is *incredible* for *want* of ſuch conformity, may nevertheleſs be ſo circumſtanced as to become *credible* on *other* accounts; and therefore, in a particular juncture of circumſtances, become ſuſceptible of actual proof from Teſtimony likewiſe.

It muſt be owned indeed that, in the preſent account of the matter, the argument deduced from the natural *feelings* or *perceptions* of the human mind, is ſuppoſed to be of *equal* weight, and intitled to the ſame attention and regard with the argument formed upon the paſt Experience of Mankind. And as the caſe will be found to ſtand, on a nearer view, the ſuppoſition, I am perſuaded,

ſuaded, is not ill-grounded. Neither is deſenſible as a concluſion of *Reaſon*; and, conſidered as an *arbitrary* inference of the mind, one ſeems to be as warrantable as the other. The *neceſſary* conſequences of *natural* principles ſeem to have full as good a claim to our admiſſion, as a mere *preſumption* ſuggeſted even from *facts*.

Mr. *David Hume*, who has handled the ſubject of the credibility of facts in general, with great perſpicuity and preciſion, has concluded that ſuch as are totally contrary to human Experience are not capable of being aſcertained by human Teſtimony. But this can only hold good on a ſuppoſition which that Gentleman ſeems to have adopted without ſufficient grounds, *viz.* that Experience is an *excluſive* teſt of what is credible or incredible in the order of natural events. As far indeed as that teſt *alone* is conſidered, the concluſion *will* hold good; becauſe whatever be the value of the general argument from Experience, a *greater* degree will neceſſarily prevail upon the compariſon with a *leſs*. But to conſider that *alone* as a teſt, in the preſent caſe, is, as I apprehend, to conſider the grounds of credibility too partially. An Event will be credible which is *contrary* to our paſt Experience, to any perſon that is perſuaded of the Exiſtence of a Power equal to the production of it: And every

every man's *perſuaſion* in *this* point ſtands exactly on the *ſame* foundation with the *perſuaſion*, on the *other* hand, that an Event of any kind will *therefore* come to paſs, in certain circumſtances, becauſe it has always taken place in the ſame circumſtances *heretofore*. The inference, in the *latter* caſe, can only be accounted for from an impulſe of *nature*; and, on the ſame principle, every thing is defenſible in like manner that is affirmed in the *former*. In a word, the *ſuppoſed* conjunction of any two events, in time *to come*, has no more relation to their *actual* conjunction in time *paſt*, than the *ſuppoſed* exiſtence of a firſt cauſe has to the *actual* exiſtence of the ſeveral finite natures of the Univerſe. *Neither* indeed can be inferred, as *abſolute certainties*; and, as *natural probabilities*, they reſt exactly on the ſame foundation.

CONCLUSION.

THE candid Inquirer, who will be able by this time to judge for himſelf of the merits of the preſent quæſtion, is deſired however to take what follows by way of recapitulation.

In judging of *future* events, we cannot at all determine about their *coming* or *not* coming to paſs, by any reaſoning *à priori*.

We

We can only form a judgment concerning them from what we know already of the general Order, *i. e.* from our obſervation and *experience* with reſpect to what is paſt.

The judgment we form in *this* manner is not an act of *reaſon*, but a mere inference of the mind to which it is impelled by *Nature*.

When therefore we ſay a thing is likely to come to paſs, in certain circumſtances, which, in thoſe circumſtances, has always come to paſs *before*, our judgment concerning ſuch likelihood is not a *rational* concluſion, however it be a *natural* one.

Now a caſe may happen in which it is every whit as *natural* (and reaſon is out of the quæſtion) to conclude that a *contrary* event, in any ſuppoſed circumſtances, may come to paſs, to that which, in the ſame circumſtances, came to paſs before.

In ſuch caſe therefore, *viz.* where the point under conſideration is not the object of *Reaſon*, and *either* ſuppoſition is *equally* agreeable to *Nature*, human Teſtimony, *as ſuch*, will be ſufficient to determine our *aſſent*. And our aſſent, in ſuch caſe, will be but *natural*, and agreeable to our method of judging from *Experience:* Since Experience aſſures us, that *facts* agree with the *reports* of Witneſſes, *oftener* than they diſagree, *i. e.* that human Teſtimony is oftener true than falſe.

Ex.

Ex. gr.

On the one Hand,

It is *natural* to conclude (but not *reaſonable)* from what we have hitherto obſerved, that a particular Event, in the general order, which in certain circumſtances, has uniformly taken place, ſhall, in *ſimilar* circumſtances, take place hereafter.

On the other Hand,

It is equally *natural,* (however not *reaſonable*) to conclude alſo, that " nothing " could ever begin to " exiſt of itſelf."— And every thing, which *neceſſarily* follows from this, it will therefore be *equally* natural to conclude; *viz.*

That every thing therefore was *produced:* Or, that there is a *firſt cauſe,* an active, productive principle, exiſting in nature.

That there is a *Power* exiſting capable of producing a *new* Order.

That the ſame principle of action is alſo indued with conſummate *Wiſdom*.

That, if occaſions require, a change in the general order *will* be produced.

That therefore any aſſignable Event in the general order, which, in certain circumſtances, hath uniformly taken place, may, even in *ſimilar* circumſtances, *not* take place; or, which is the ſame thing, that a *contrary* Event may take place.

Theſe oppoſite concluſions then, in different circumſtances, being equally *natural*, it is, in ſuch caſe, but agreeable alſo to *nature*, and our general Method of judging from *Experience*, to aſſent to that of the two, as the *fact*, which is ſupported by *Teſtimony* (provided no *particular* circumſtances render the Teſtimony exceptionable) becauſe *Experience* ſhews that *Teſtimony*, in general, is *more* likely to be *true* than *falſe*.

F I N I S.